

IN THE SPECIFICATION:

Please replace the paragraph that begins on page 7, line 3 of the originally-filed specification with the following new paragraph:

Knowing several positions of point O and the corresponding femur orientations, as determined by means 20 for locating several positions of the femur during motions thereof, the problem to be solved to determine the position of point C is an optimization problem. Various calculation methods 40 for solving this problem may be used: general non-linear least error squares methods, methods adapted to cases where the expression to be minimized is a square of sums of squares, formal calculation methods for solving polynomial equation systems.

Please replace the paragraph that begins on page 6, line 16 of the originally-filed specification with the following new paragraph:

In a first embodiment the present invention is based on the two following observations. The first observation is that, if it is very difficult to immobilize the pelvis of a patient lying on his back, it is however possible to immobilize his thigh, and thus his femur, by mechanical system 30, pneumatic or vacuum systems, which compress and block the thigh or knee. The second observation is that, given the structure of the human body, it is possible to fasten an external marker against the femoral condyles, the position of this marker remaining perfectly fixed with respect to the femur.

Please replace the paragraph that begins on page 6, line 26 of the originally-filed specification with the following new paragraph:

In this first embodiment of the present invention, to measure the position of the center of a femur head, for example left femur head 5, the present invention provides attaching the patient's opposite thigh, containing femur 6 to means 30. Thus, right femur head 4 remains fixed. The only possible motions of the iliac bone then are rotation motions around this femur head. Designating by C the

center of rotation of head 5 of femur 7 and by D the center of rotation of head 4 of femur 6, since point D is fixed, point C can only move on a sphere centered on point D. Thus, a point O attached to femur 7 can only move according to a combination of motions including a rotation of fixed radius around point C, and a rotation of fixed radius of point C around point D.

Please replace the paragraph that begins on page 7, line 26 of the originally-filed specification with the following new paragraph: